

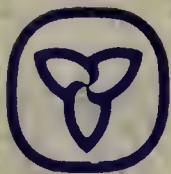
ONTARIO LABOUR FORCE PROJECTIONS
1976 - 2001



Ontario

Social and Economic Data
Central Statistical Services
Ministry of Treasury and Economics

January 1980

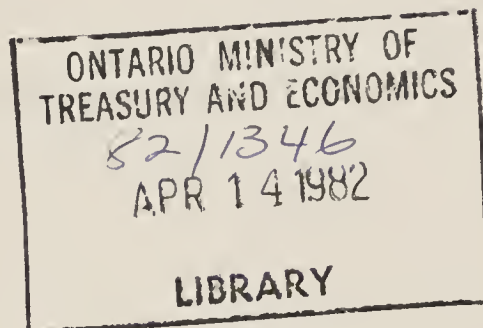


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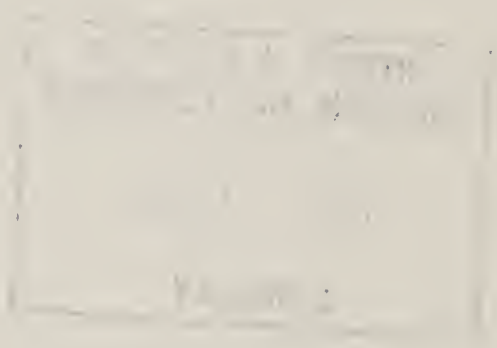
ONTARIO LABOUR FORCE PROJECTIONS
1976 - 2001



Social and Economic Data
Central Statistical Services
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ONTARIO LABOUR FORCE PROJECTIONS 1976-2001

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INTRODUCTION

The following report gives a general look at past and future trends in growth of the work force in Ontario and its relationship to demographic factors.

It is clear that demography is only one part of the equation in the determination of total work force. As well as the number of persons of working age in the population their attachment to the work force has to be taken into account. Participation rates at any point in time are affected by the demand for workers, growth of the economy, society's attitudes toward working and income alternatives. For the more volatile sectors of the work force -- women, young people and older people, this is particularly significant. These factors have been and will continue to be important factors in the growth of the work force.

In this study, it is assumed that the trends of the past twenty-five years will continue. Men in the 25-65 year age group will continue their present high rate of attachment to the work force; women will continue to enter the work force in increasing proportions; and the elderly will continue their fairly low rate of attachment to the work force.

It must also be remembered that these are long term trends and that the state of demand for workers in any one year is related to the position of the economy in the business cycle in that year. Such cyclical fluctuations in demand are reflected in cyclical patterns in labour force growth, which have not been taken into account in these projections.

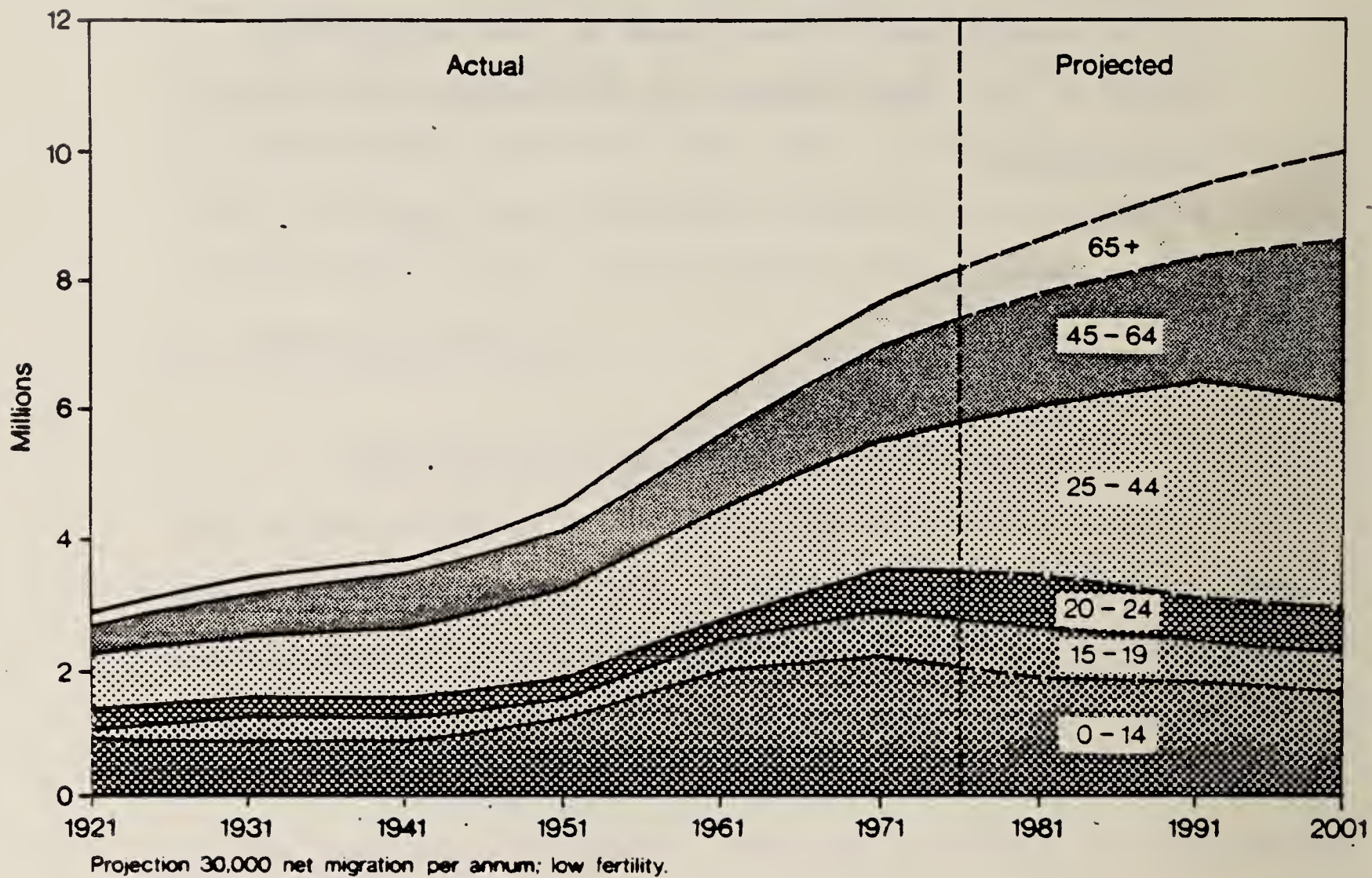
The projections by county and economic region share the problems of population projections for small areas. Any shift in growth patterns resulting from development of new industrial communities or declines in present communities because of resource exhaustion or shifts in demand patterns can result in substantial changes in the location of growth. The young working age population are the most mobile group so that the effect of any such changes are more pronounced on the labour force than on total population.

Despite the multiplicity of forces affecting the labour force some trends have emerged fairly clearly and while exact numbers may fluctuate from year-to-year, there appears to be a general direction of growth. The rapid increases in labour force growth during the sixties through high immigration and the seventies through young new entrants to the work force have slowed. The growth rate is expected to slow even more dramatically in the eighties and nineties than it has in the late seventies as net

migration to Ontario remains at modest levels and the young people born during years of declining birth rates -- the late sixties and the seventies come of working age.

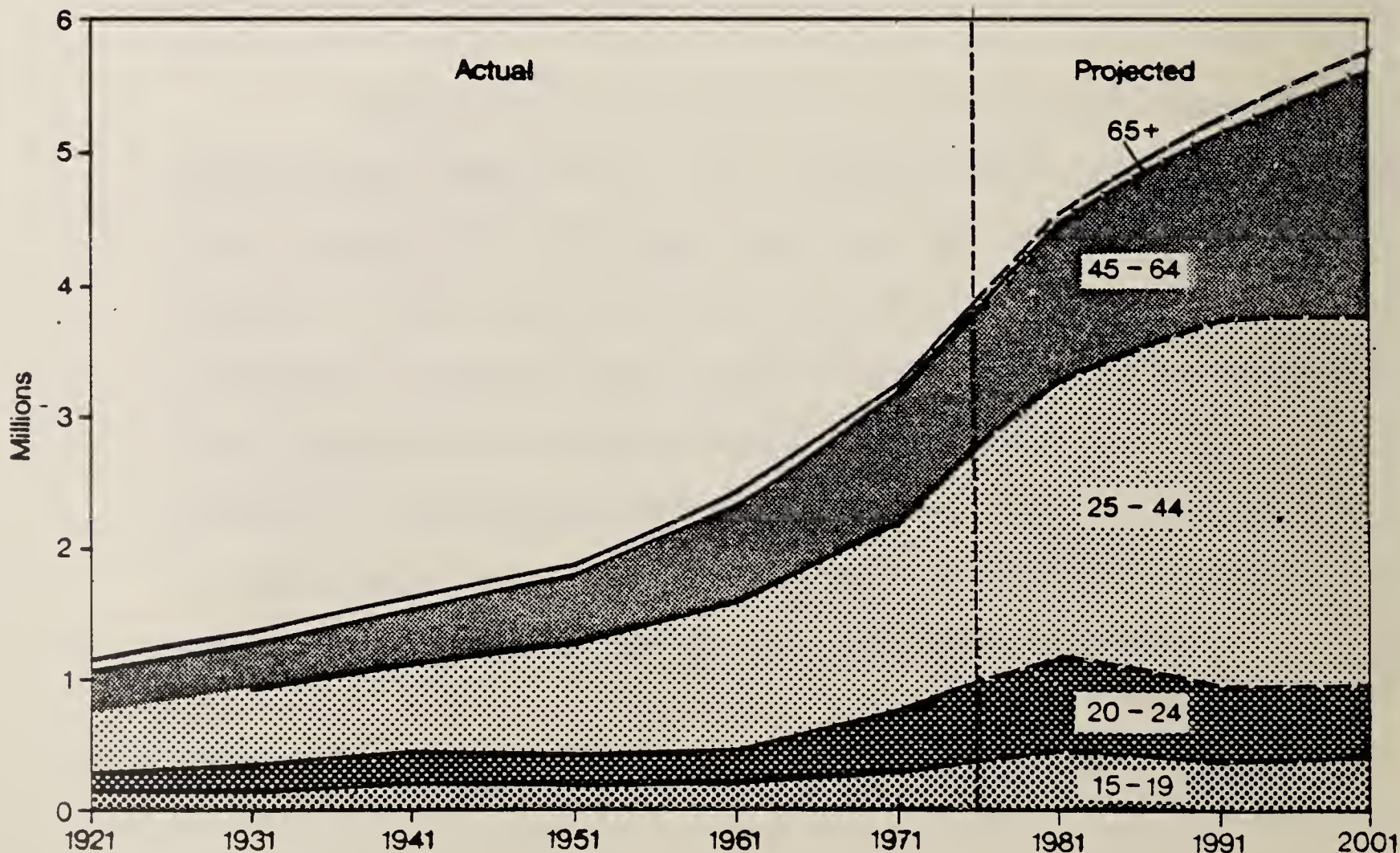
GRAPH 1

Population by Broad Age Groups, Ontario,
Actual 1921 - 1971 and Projected 1981 - 2001



GRAPH 2

Labour Force by Broad Age Groups*, Ontario,
Actual 1921 - 1971 and Projected 1981 - 2001

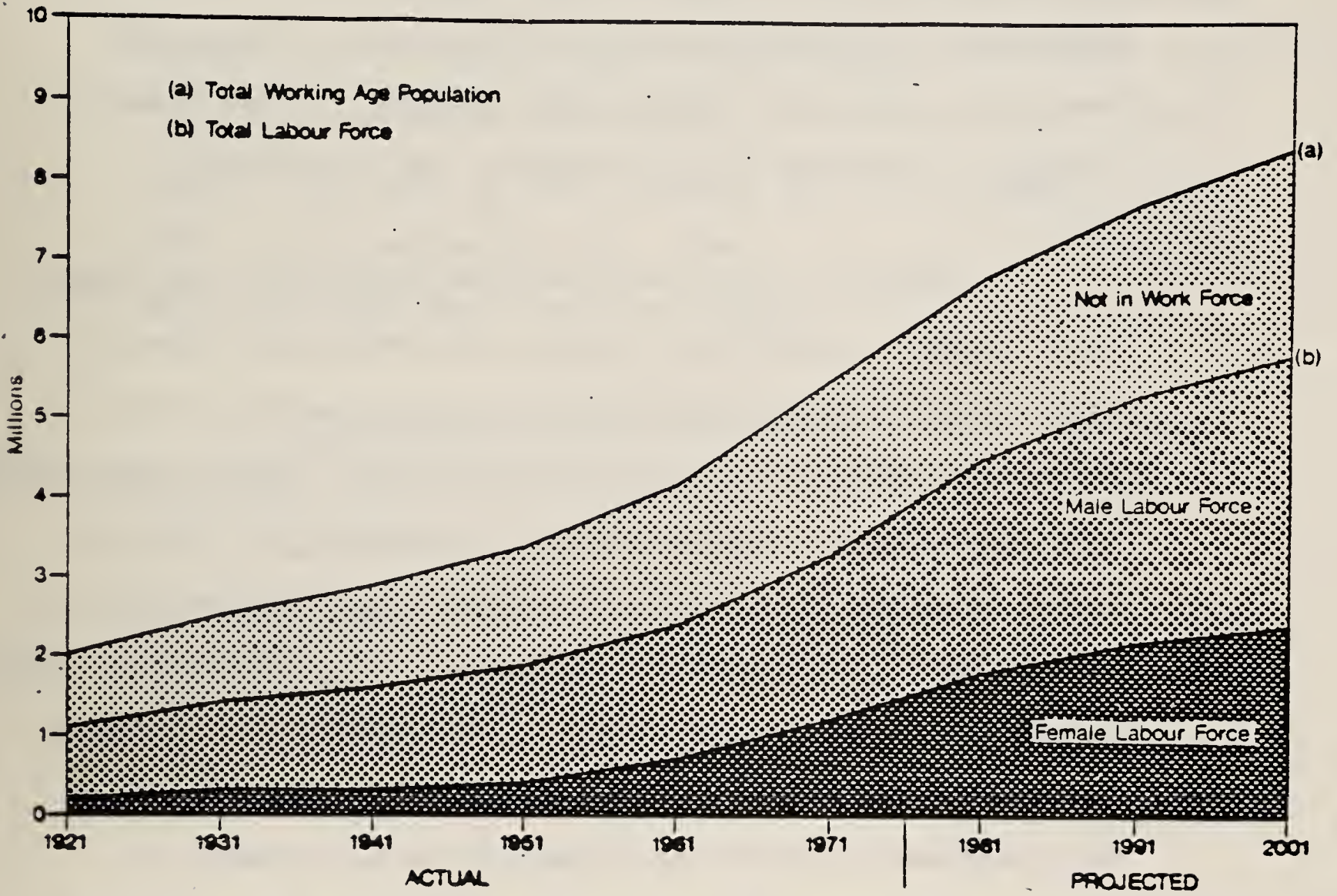


* From 1921 - 1961, the age bracket is 14 - 19 years.

Projection 30,000 net migration per annum; high participation rates.

GRAPH 3

WORKING AGE POPULATION AND LABOUR FORCE PROJECTIONS,
ONTARIO, ACTUAL 1921-1971 PROJECTED 1981-2001
(30,000 NET MIGRATION, HIGH PARTICIPATION RATES)



HISTORICAL PERSPECTIVE ON LABOUR FORCE GROWTH 1921-78

The labour force in Ontario rose from 1.1 million in 1921 to 4.1 million in 1978, while the working age population increased from 2.0 million to 6.3 million. Over this time span labour force growth in each decade generally exceeded that of working age population.

Growth of both working age population and labour force clearly reflect the impact of immigration levels. From 1921-31 working age population increased by 20.8% while the labour force increased by 22.3%. While immigration was about 67,000 during the 1931-41 period, and 307,000 during the 1941-51 period, the growth rate of the working age population dropped to 15.8% and 17.3% respectively owing partially to the sharp drop in immigration levels during the depression and war years. From 1951-61 and 1961-71 rapid economic growth attracted increased numbers of immigrants and this was reflected in higher levels of growth in working age population and labour force than in the previous decades.

Labour force growth over this century has generally exceeded that of the working age population owing to steadily increasing female participation. The most remarkable increase in growth took place in the 1961-71 period when the labour force rose 37% compared with 30% for working age population. This difference reflects an

increase of 72.7% in the female labour force in this decade compared with 22.9% in the male labour force.

The rapid rise in female participation rates has brought a startling change in the makeup of the work force. In 1921, the labour force was 82.5% male and only 17.5% female. By 1951 it was 76% male and 23.7% female. By 1978, it is estimated the labour force of 4.1 million is about 60% male and over 40% female.

The female labour force participation rate rose from approximately 19.1% in 1921 to 26.5% in 1951, by 1971 it was 40.2% and in 1978 was estimated at 51.5%. The male labour force participation rate has, on the other hand, actually dropped from 1921 when it was 88.8%. Over the past decade, the annual average has varied within one percentage point of 80%, and in 1978 was 80.1%.

The age distribution of the labour force reflects the age distribution of the population as a whole, In 1921, when there were large numbers of young in the population, the 14-19 age group comprised 12.3% of the labour force (the highest level on the chart) and again in the seventies with the entrance of the "baby boomers" into the labour force, the young became a significant percentage of the labour force.

During the fifties and sixties the age groups 25-44 and 45-64 increased in numbers reflecting mainly higher

immigration levels. In 1961, the 25-44 age group was 47% of total labour force while the 45-64 age group was 30.2% of the labour force, the highest level on our chart for these age groups. Another aspect of age distribution in the labour force was the steadily declining segment in the 65+ age group owing to the increase in pension plans, the compulsory retirement policies and earlier retirement. In 1921, the 65+ age group was 5% of the labour force and only 1.7% in 1978, but the 65+ group represented 8.4 and 11.6 per cent respectively of the working age group.

As the large number of young presently in the labour force mature, the total labour force will again show larger numbers in the 25-44 and 45-64 age groups.

It is likely that Ontario's future labour force will not only include more female workers but will also be a more mature labour force.

TEN-YEAR GROWTH RATES IN WORKING AGE POPULATION AND
LABOUR FORCE, 1921 - 1971

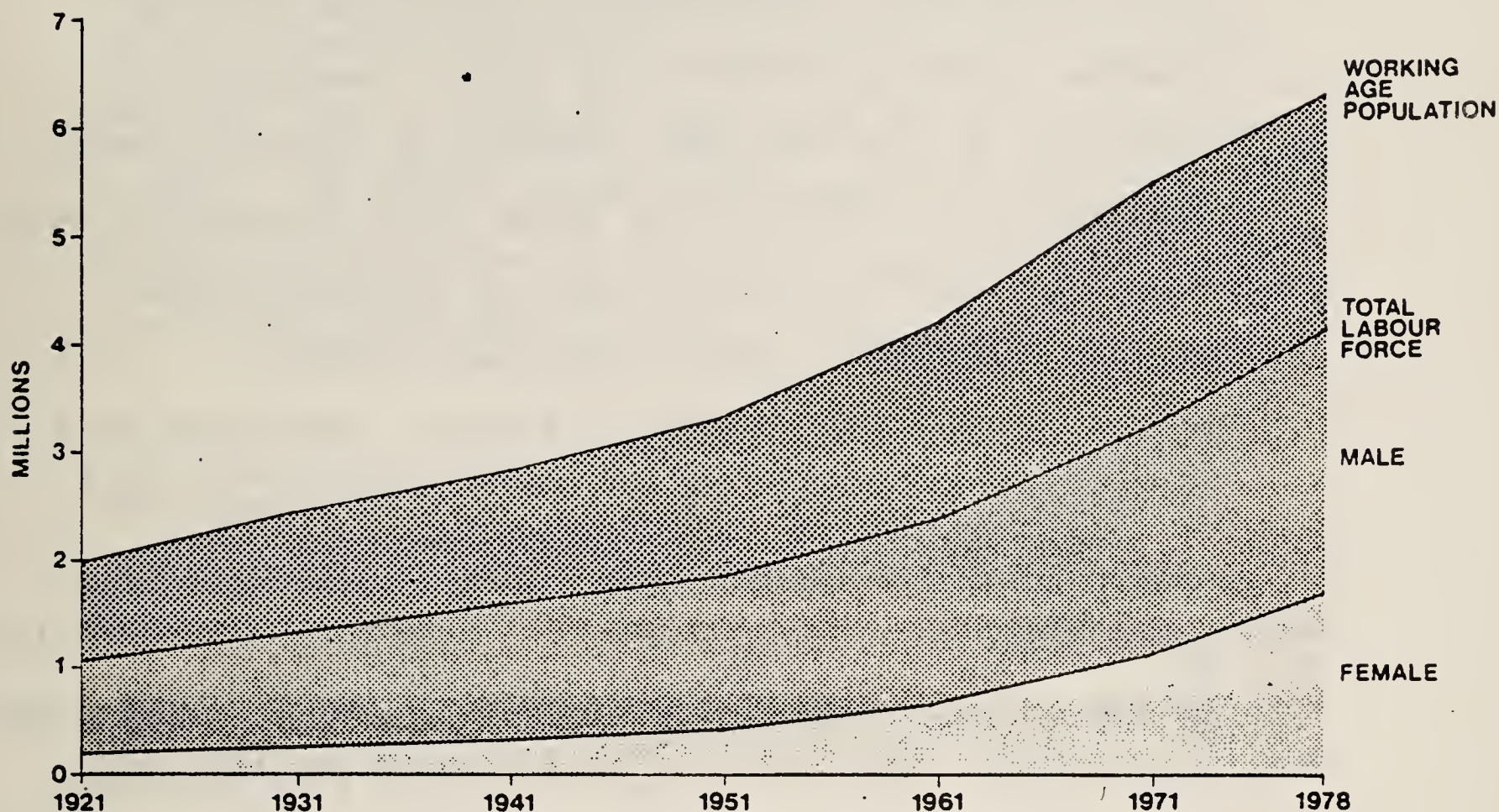
	Working Age Population	Labour Force		
	%	Total %	Male %	Female %
1921-31	20.8	22.3	20.5	30.8
1931-41	15.8	17.7	14.5	31.4
1941-51	17.3	16.3	12.1	32.5
1951-61	25.9	28.4	20.4	54.1
1961-71	30.0	37.0	22.9	72.7
1971-78	15.3	26.0	17.5	41.2

IMMIGRANTS GIVING ONTARIO AS DESTINATION

	Total Number
1921-30	431,451
1931-40	67,093
1941-50	306,744
1951-60	833,692
1961-70	752,060
1971-78	620,425

GRAPH 4

WORKING AGE POPULATION AND LABOUR FORCE IN ONTARIO



WORKING AGE POPULATION AND LABOUR FORCE, ONTARIO, 1921-1978

	Working Age Population (000's) 15+	Labour Force* (000's)		
		Total	Male	Female
1921	2,048	1,117	922	195
1931	2,473	1,366	1,111	255
1941	2,863	1,608	1,272	335
1951	3,358	1,870	1,426	444
1961	4,228	2,401	1,717	684
1971	5,495	3,290	2,110	1,181
1978	6,333	4,147	2,480	1,667

* From 1921-1961 the labour force includes 14 year olds.

Source: Census of Canada, Intercensal Estimates of Population, Labour Force Survey, Statistics Canada

ONTARIO LABOUR FORCE PROJECTIONS

In Ontario, population and labour force growth are more strongly influenced by immigration than by changes in birth and mortality rates. Geographic distribution is also very much affected by migration rates. Immigration into Ontario has shown great variability over the years, and our current rates of immigration and present government policy indicate a fairly modest inflow of immigrants in future. Reflecting this development in immigration along with declining birth rates, the annual growth rate of Ontario's working age population will probably drop from around 2% in the 1976-81 period to 1% or less in the 1996-2001 period. At the same time, labour force growth rates may drop from an annual average of around 3% in the 1976-81 period to 1% or less in the 1996-2001 period. A general decline in the growth rates will occur in all regions of Ontario.

The labour force projections have been prepared on the basis of both 30,000 net migration and 50,000 net migration and using two sets of participation rate projections. This allows the user four alternative projections based on the various assumptions of population growth and labour force participation.

Assuming 30,000 net migration, the working age population would rise from 6.2 million in 1976 to 8.4 million by 2001, but if immigration levels should rise and we gained 50,000 persons per year through population movements, the working age population could be 8.8 million by 2001. The labour force would number 5.4 to 5.8 million by 2001 (based on 30,000 net migration) or 5.7 to 6.1 million based on 50,000 net migration.

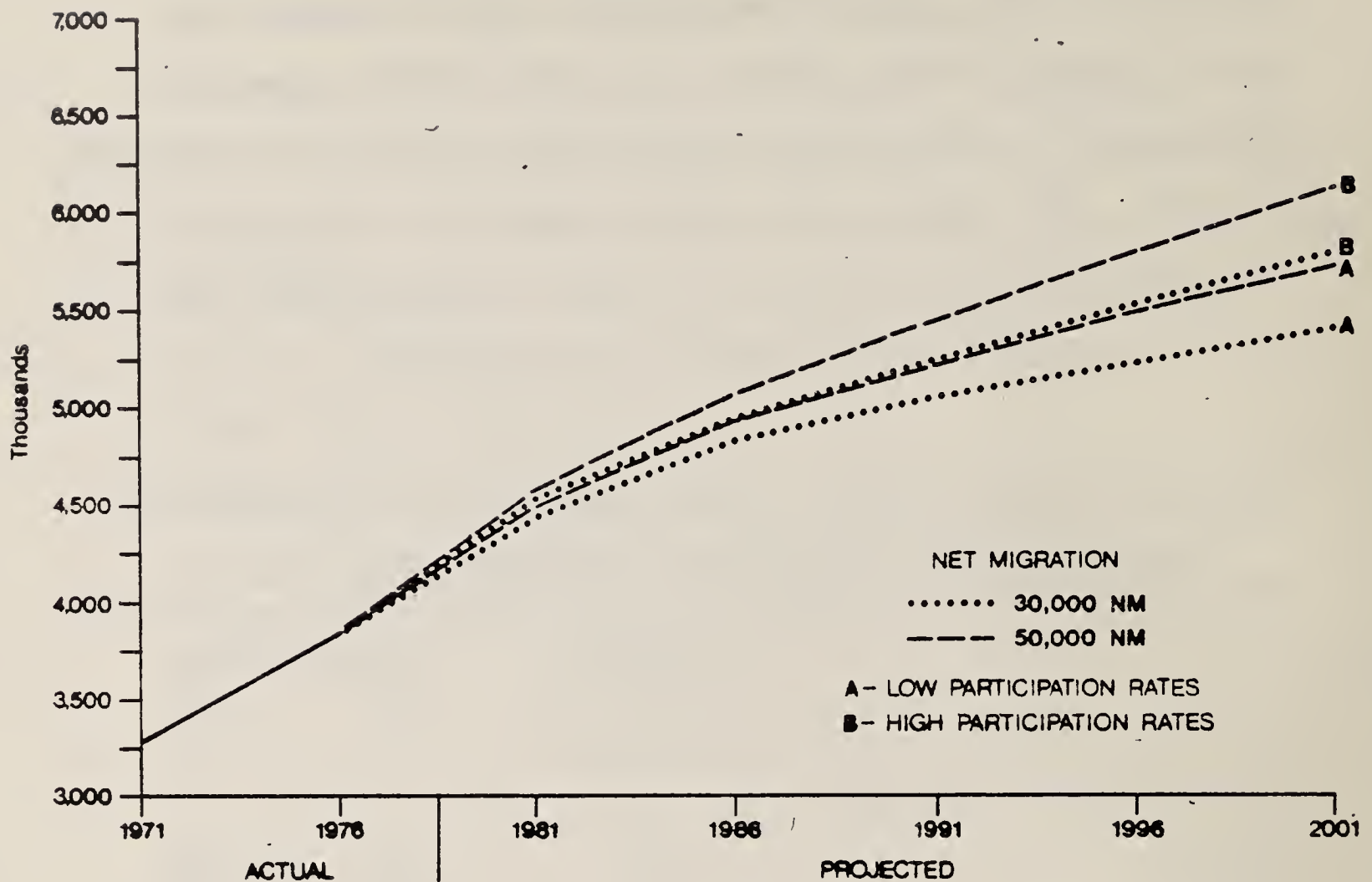
FIVE-YEAR AVERAGE ANNUAL GROWTH RATES (%) IN WORKING AGE
POPULATION AND LABOUR FORCE, ONTARIO 1976-2001

	Population 15+	Labour Force	
		A	B
		—	—
At 30,000 Net Migration			
1976-81	1.99	2.90	3.31
1981-86	1.37	1.65	1.75
1986-91	1.05	1.89	1.18
1991-96	0.89	0.72	1.00
1996-2001	0.79	0.63	0.91
At 50,000 Net Migration			
1976-81	2.22	3.17	3.59
1981-86	1.59	1.90	2.00
1986-91	1.27	1.13	1.42
1991-96	1.11	0.96	1.24
1996-2001	1.00	0.87	1.15

Source: Social and Economic Data,
Central Statistical Services,
Projections produced in 1978 and 1979.

GRAPH 5

LABOUR FORCE PROJECTIONS, ONTARIO ACTUAL 1971, 1976, PROJECTED 1981 - 2001



Ontario: Alternative Labour Force Projections

	Population 15+	Labour Force Low Participation	Labour Force High Participation (thousands)
<u>30,000 Net Migration</u>			
1976 (Actual)	6,191	3,856	3,856
1981	6,830	4,449	4,539
1986	7,313	4,829	4,951
1991	7,706	5,048	5,250
1996	8,057	5,232	5,517
2001	8,380	5,398	5,771
<u>50,000 Net Migration</u>			
1976 (Actual)	6,191	3,856	3,856
1981	6,909	4,508	4,599
1986	7,475	4,952	5,077
1991	7,961	5,239	5,448
1996	8,411	5,497	5,795
2001	8,841	5,740	6,136

Note: 1976 Data is from 1976 Census.

AGE DISTRIBUTION

Perhaps the most important feature of the 1980s will be the sharp decline in the number of youths aged 15-24, which is an inevitable consequence of the drop in the birth rates in the 1960s. In 1976, the labour force in this age group totalled around 980,000, and by 1981 is expected to reach about 1.1 million. In the following five year period to 1986 it will probably drop by some 40 to 60 thousand, and continue to decline until 1996, after which it will show a slight upward trend.

In 1976, the young age group comprised 25% of working age population and labour force, but by 1986 it might well be around 21-22% of the labour force. By 1996 it is expected to drop to 16-17%, and by 2001 comprise around 15-16% of working age population and labour force..

On the other hand, the maturation of the young labour force, and their movement into the middle age groups will greatly increase the proportion of the 25 - 44 year olds in the working age population and labour force.

The number of 25-44 year olds in the labour force by 1991 will be approximately 1 million greater than in 1976, and total between 2.6 and 2.9 million. By 1991,

LABOUR FORCE PROJECTIONS BY BROAD AGE GROUP,
ONTARIO, 1976-2001

AGE GROUP	ACTUAL 1976 CENSUS	PROJECTED				
		1981	1986	1991	1996	2001
(thousands)						
15-19	395	443	379	353	351	360
		462	408	394	406	431
20-24	585	660	661	567	529	529
		689	701	616	589	603
25-44	1706	2078	2431	2656	2667	2596
		2155	2553	2871	2965	2963
45-64	1077	1194	1272	1367	1564	1781
		1206	1311	1441	1688	1973
65+	93	74	87	105	120	133
		87	104	127	148	166
TOTAL	3856	4449	4830	5048	5231	5399
		4599	5077	5448	5795	6136

First Line in Each Age Group -- Lowest Projection: Low Fertility, 30,000 net migration, slight increase in participation rates.

Second Line in Each Age Group -- Highest Projection: Low fertility, 50,000 net migration, substantial increase in participation rates.

the 25-44 year olds are expected to be over one half the total, while the 45-64 year olds will be approximately one quarter of the total. By 2001, these two groups may be around 80% of the labour force compared with 72% in 1976.

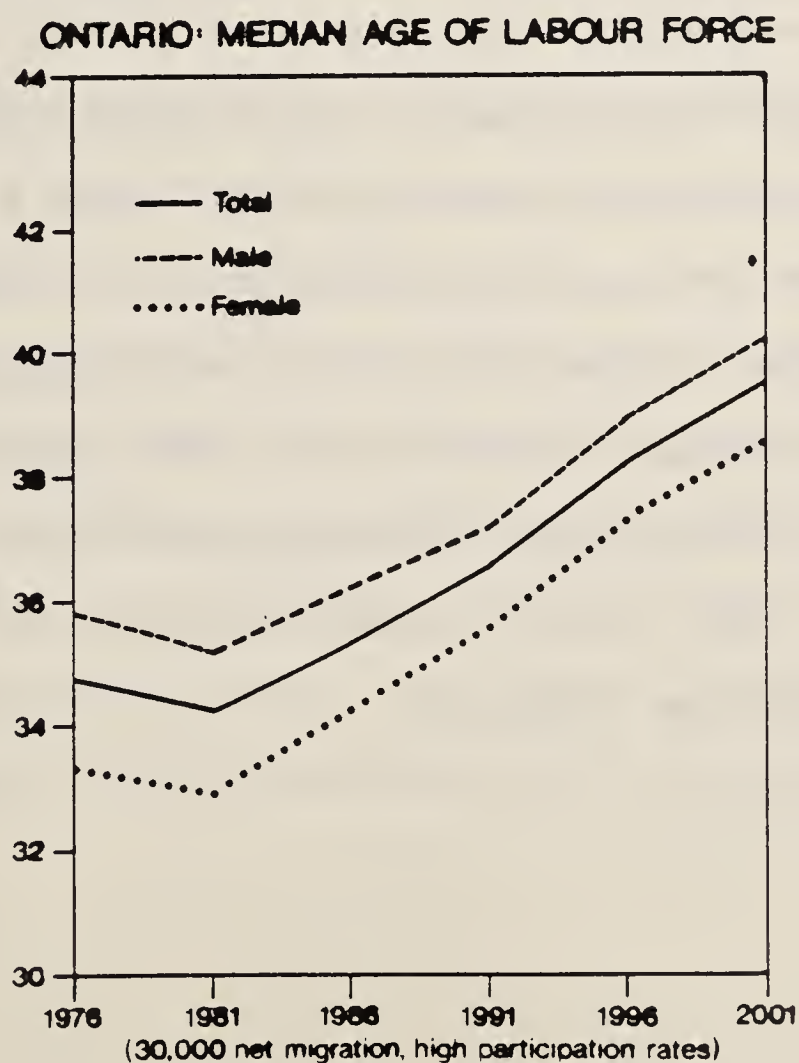
The number of people in the 65+ age group and in the labour force may also show a slight tendency to rise after 1981 owing to the steadily increasing number of senior citizens in the population. Those 65+ and over were almost 12% of the adult population in 1976, but by 2001 they may be over 16% of the total. Those in the

labour force will likely maintain a share of 2-3% of the total despite the present trends in pension plans and early retirement for a large segment of older workers. Any easing of the policies geared to compulsory retirement at age 65 could result in greater increases in the work force 65+ than those projected.

Median Age

The median age of the labour force was 34.7 years in 1976 - that for men was 35.8 years and that for women somewhat lower at 33.3 years. Owing to the large number of youths in the labour force, the median age will drop slightly by 1981, but thereafter rise steadily until by 2001 it will be more than 39 years of age. The median age for males by 2001 will be around 40 years, and that for females about 38 years. This rise in the median age reflects the maturation of the large numbers of the young labour force in the early '80s and their movement into older age groups through the projection period.

GRAPH 6



PARTICIPATION RATES

Labour force growth is a function of the trends in labour force participation among the various population groups and therefore projection of labour force is fraught with a great deal of uncertainty. Female labour force participation has increased markedly in recent years. While the participation rate for men has varied annually within one percentage point of 80%, the total participation rate for women has been rising steadily and reached 51.5% in 1978 (compared with 40.1% in 1968).

The rapid increase in participation rates for young women is likely to influence future participation rates in the older age groups. Those women who remain in the labour force during most of the period of their twenties and thirties are more likely to remain during their fifties and early sixties than are those who either never entered the labour force or did so for only a few years until the first baby was born. This may have a very strong impact on future labour force growth. Women aged 25-44, particularly, have been joining the work force in large numbers in recent years and it is expected that they will continue to do so. However, even if the rate of increase in participation rates in this age group slackens a bit, the impact of the changing life styles and working patterns which have already been established may affect the participation of women in the 45 to 64 year age category.

Labour force participation rates for youth showed large year-to-year increases in the early 70s, but this has shown a tendency to slacken off, owing mainly to a drop in the participation rate of young men.

To prepare the labour force projections, two sets of possible participation rates were estimated for the province as a whole, and it is assumed that the county participation rates bear the same relationship to the provincial rates throughout the projection period. The regional totals were then built up from the county estimates.

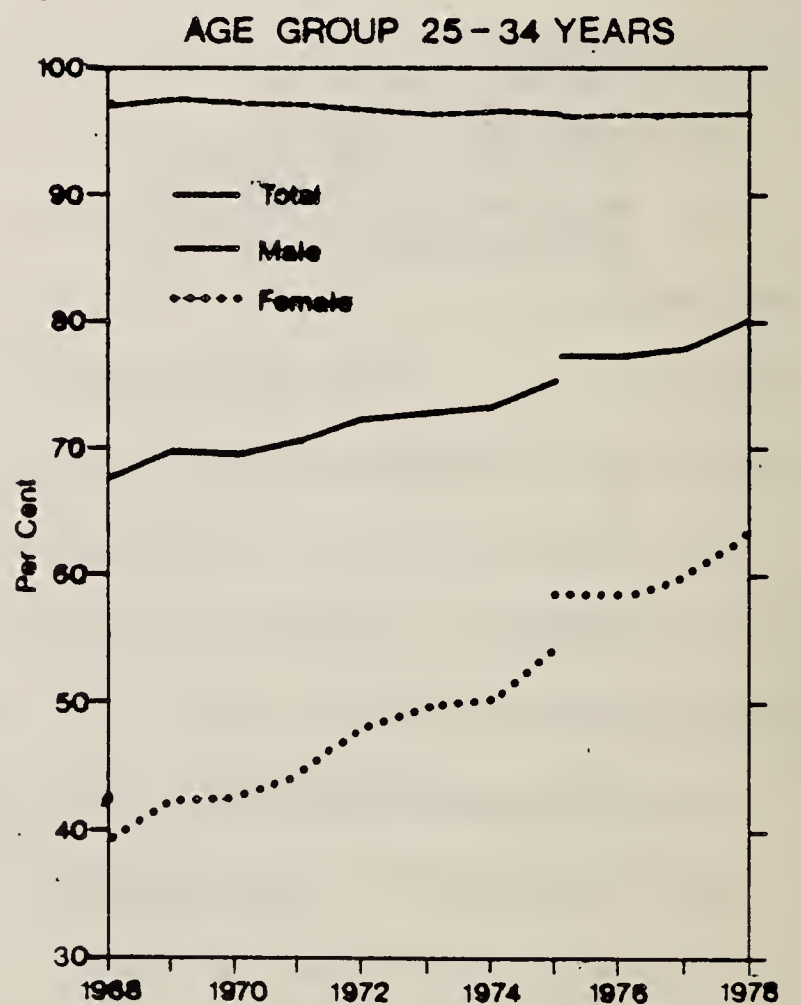
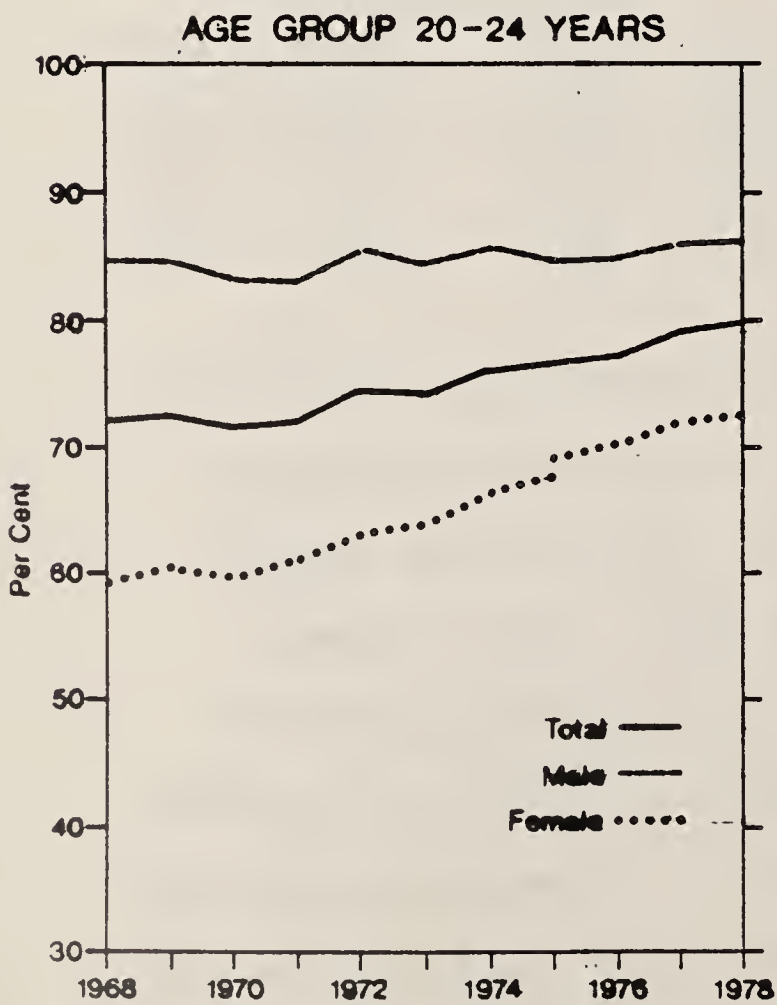
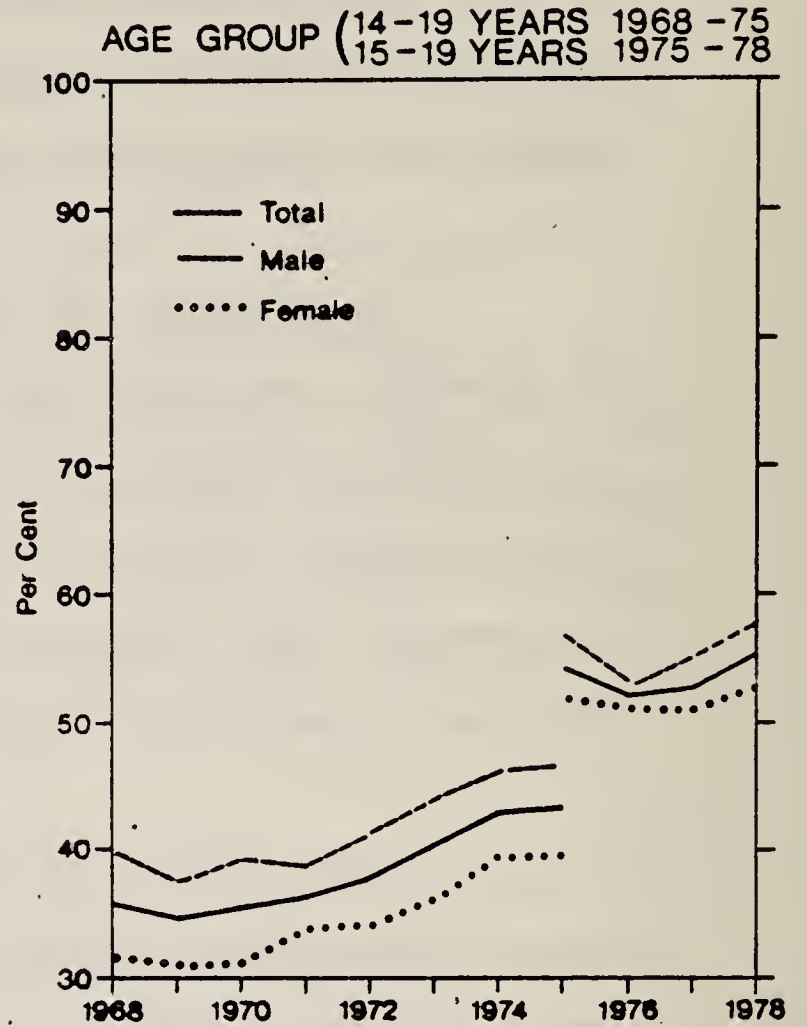
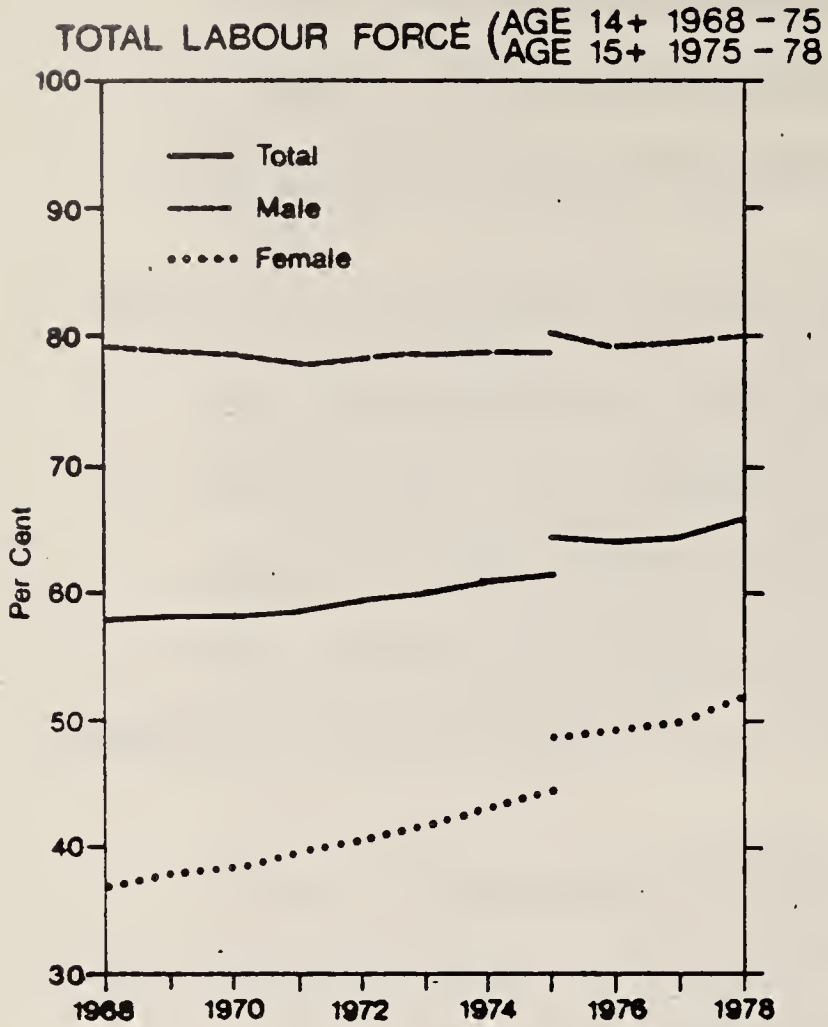
Over the projection period, the participation rates (the ratio of labour force to total population 15 and over) for the regions range as follows:

	Male (Per Cent)	Female
Province	80.0 - 83.0	49.2 - 56.9
Eastern Ontario	79.3 - 81.3	49.8 - 57.0
Central Ontario	81.0 - 83.0	50.0 - 58.0
Southwestern Ontario	80.3 - 84.0	49.1 - 57.3
Northeastern Ontario	76.0 - 79.0	40.1 - 46.1
Northwestern Ontario	78.3 - 81.4	45.6 - 52.3

The projected participation rates for both males and females are generally lower in the Northern Ontario regions than in Southern Ontario. The Central Ontario Region is expected to have the highest labour force participation rates for women in the province, but the Southwestern Region may sometimes have higher total rates for men over the projection period. These differences are to a considerable extent the result of differences in age distribution of the population in the different regions.

GRAPH 7

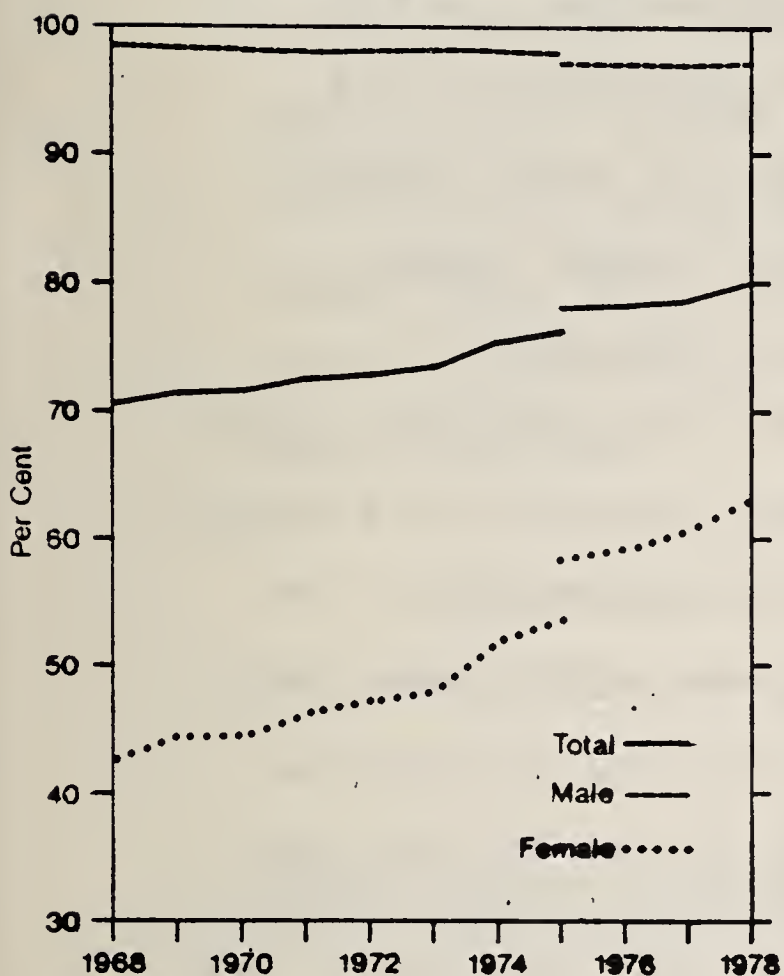
PARTICIPATION RATES, ONTARIO, SELECTED AGE GROUPS, ACTUAL 1968-1978



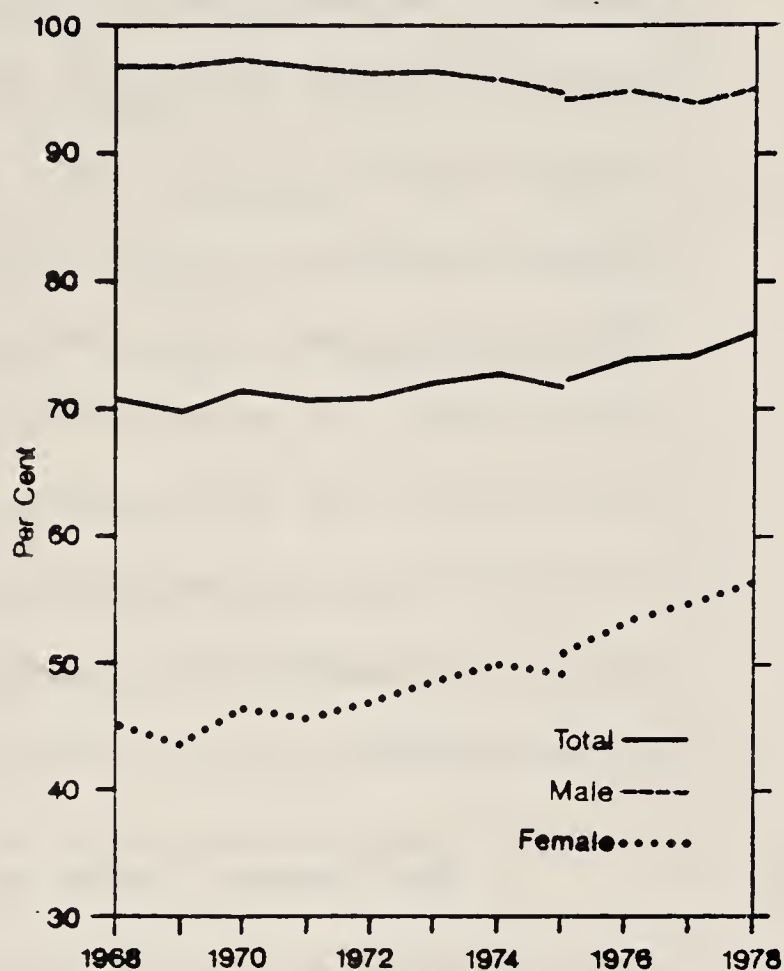
SOURCE: STATISTICS CANADA, LABOUR FORCE
 RATES FROM 1968-1975 ARE FROM THE OLD LABOUR FORCE SURVEY
 RATES FROM 1975-1978 ARE FROM THE REVISED LABOUR FORCE SURVEY

PARTICIPATION RATES, ONTARIO, SELECTED AGE GROUPS, ACTUAL 1968-1978

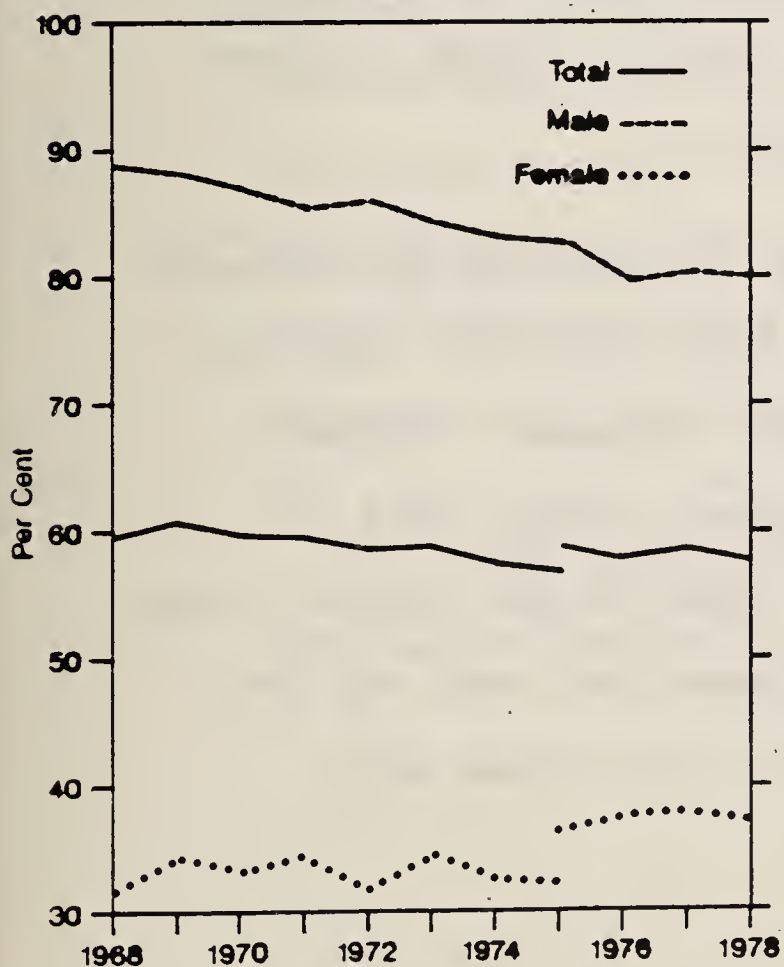
AGE GROUP 35-44 YEARS



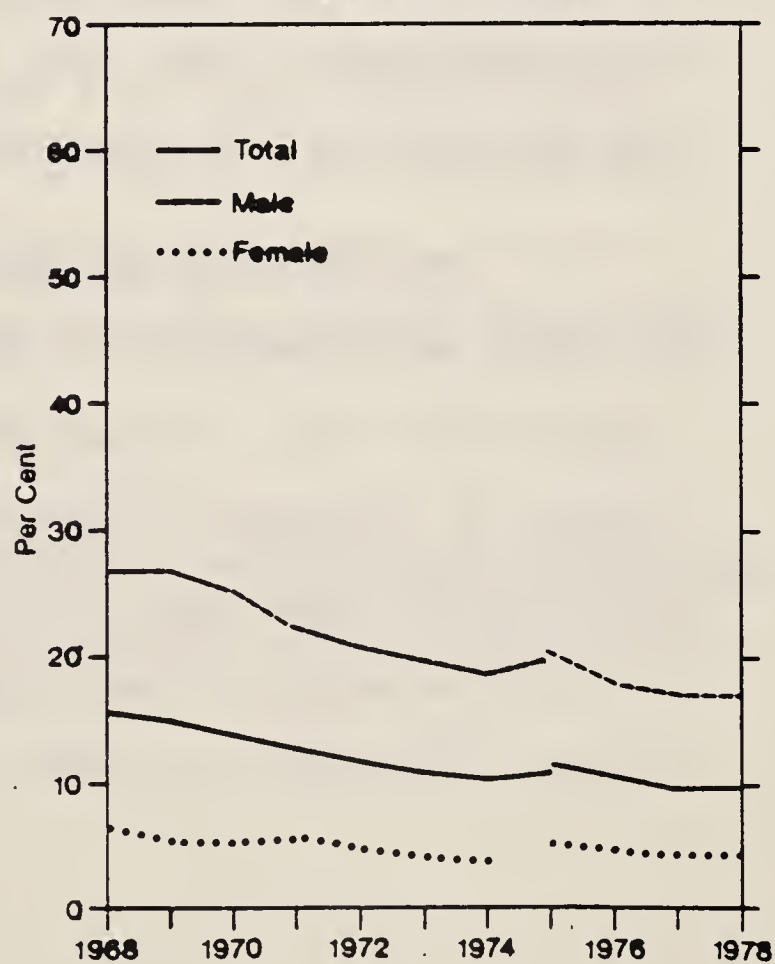
AGE GROUP 45-54 YEARS



AGE GROUP 55-64 YEARS



AGE GROUP 65+ YEARS



REGIONAL LABOUR FORCE GROWTH 1976 - 2001

Approximately 63% of the province's labour force is concentrated in the Central Region. It is not anticipated that this regional distribution will change too much in future. By 2001 the Central Region may have between 3.4 and 4.0 million in the labour force (the upper and lower limits in this set of projections) or approximately 65% of the provincial total. The Eastern and Southwestern Regions together are expected to have 1.5 to 1.7 million or approximately 27% of the province's labour force while the remaining 8% will be in Northern Ontario.

The labour force of the Eastern Ontario Region will probably rise from approximately 535 thousand in 1976 to about three quarters of a million by 2001. It is anticipated the five-year average annual growth rates will drop from about 3 per cent in the 1976-81 period to under one per cent in the 1996-2001 period.

The working age population is expected to increase by about one quarter of a million from 1976-2001, and the labour force may increase by 175-250 thousand. Russell County is projected to have the highest growth rate in working age population and labour force in the Region, owing to its proximity to the Ottawa metropolitan area and the current direction of urban spread in the Ottawa area.

The working age population of the Central Region will probably be around five and a half million by 2001, while the labour force will range from three and a half to four million. The highest growth rate in working age population and labour force is expected to be encountered in York R.M., Dufferin, Peel R.M., Waterloo R.M., Wellington, Durham R.M., Halton, and Simcoe counties, if the present trend of movement to the outer fringes of metropolitan areas continues.

High growth rates in these municipalities reflect the tendency for movement of people and industry from metropolitan to adjacent suburban areas. Changes in local policies and in relative housing and transportation costs could change these trends.

The average annual growth rate in the Region's working age population will drop from over 2% in the 1976-81 period to around 1% by 1996-2001, while labour force growth rates will drop from over 3% to around 1%. The working age population will increase by 1.5 to 1.8 million over the 1976-2001 period while labour force will increase by 1 to 1.5 million.

The working age population in Southwestern Ontario will be well over 1.2 million by 2001, while labour force

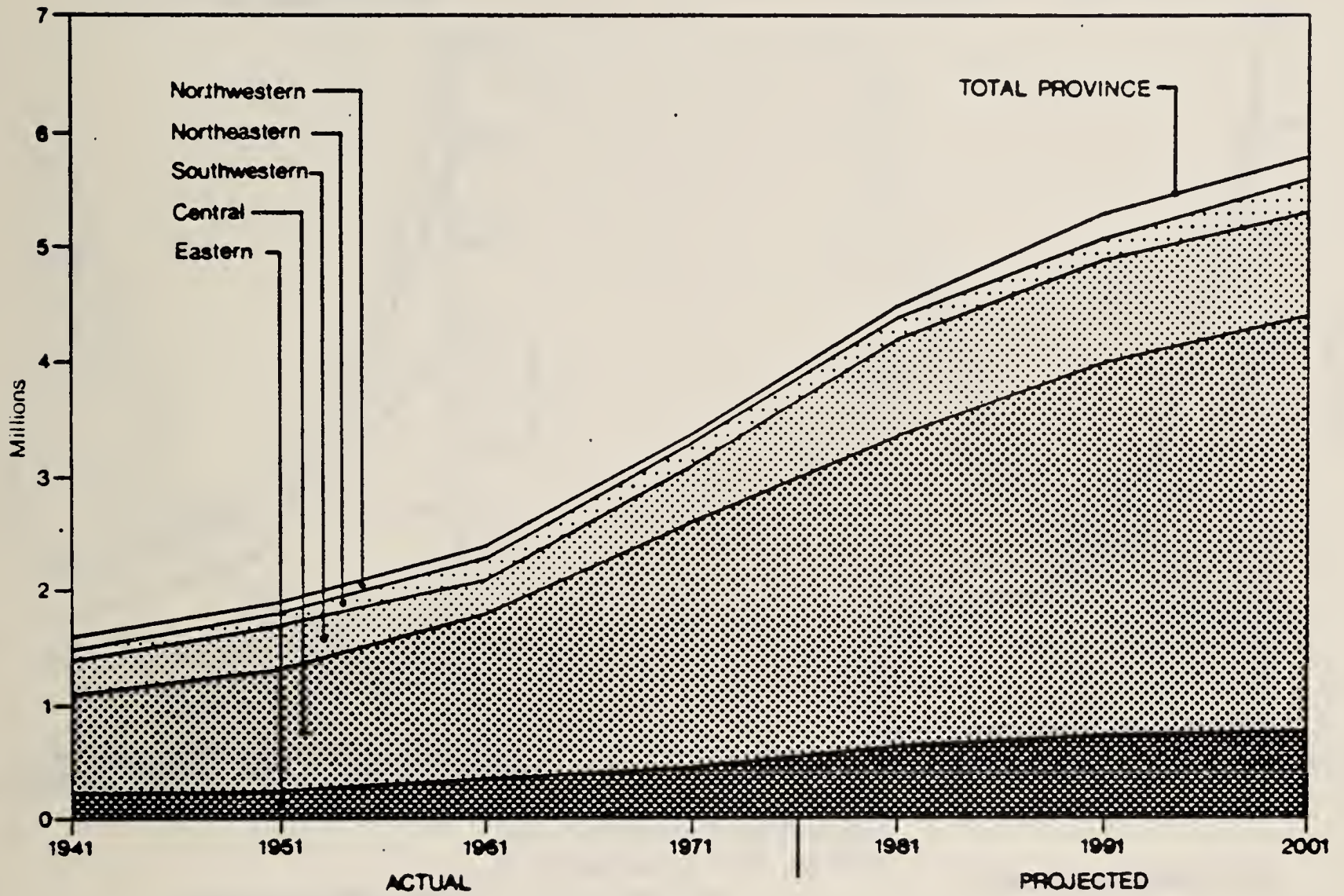
will range from 820-910 thousand, depending on participation rates. The growth rate in the working age population will slacken off from around 2% annually in 1976-1981 to less than 1% by 2001, while the labour force growth rate will drop from around 3% to somewhere around 1%. Growth will be fairly well dispersed throughout the Region with the higher rates in working age population and labour force in Bruce, Grey, Oxford, Essex and Lambton counties.

Northeastern Ontario will probably have a working age population of about 530 thousand by 2001 while labour force will range around the 325 thousand level. The working age population will probably add 112-120 thousand over the 1976-2001 period and labour force 75-100 thousand. Most of this growth will take place in Sudbury Regional Municipality and Algoma District. Average annual growth rates will be around 0.5 or 0.6 per cent for the Region as a whole by 2001.

In the Northwestern Ontario Region, working age population will rise by about 40 thousand over the 1976-2001 period to reach a total of somewhere near 210 thousand. Labour force will probably be between 128 and 140 thousand, by 2001 and could have an average annual growth rate of anywhere from 0.35 to 0.70%. Thunder Bay is expected to be the growth centre if present economic trends continue as population and labour force are expected to continue to decline in the Kenora and Rainy River areas.

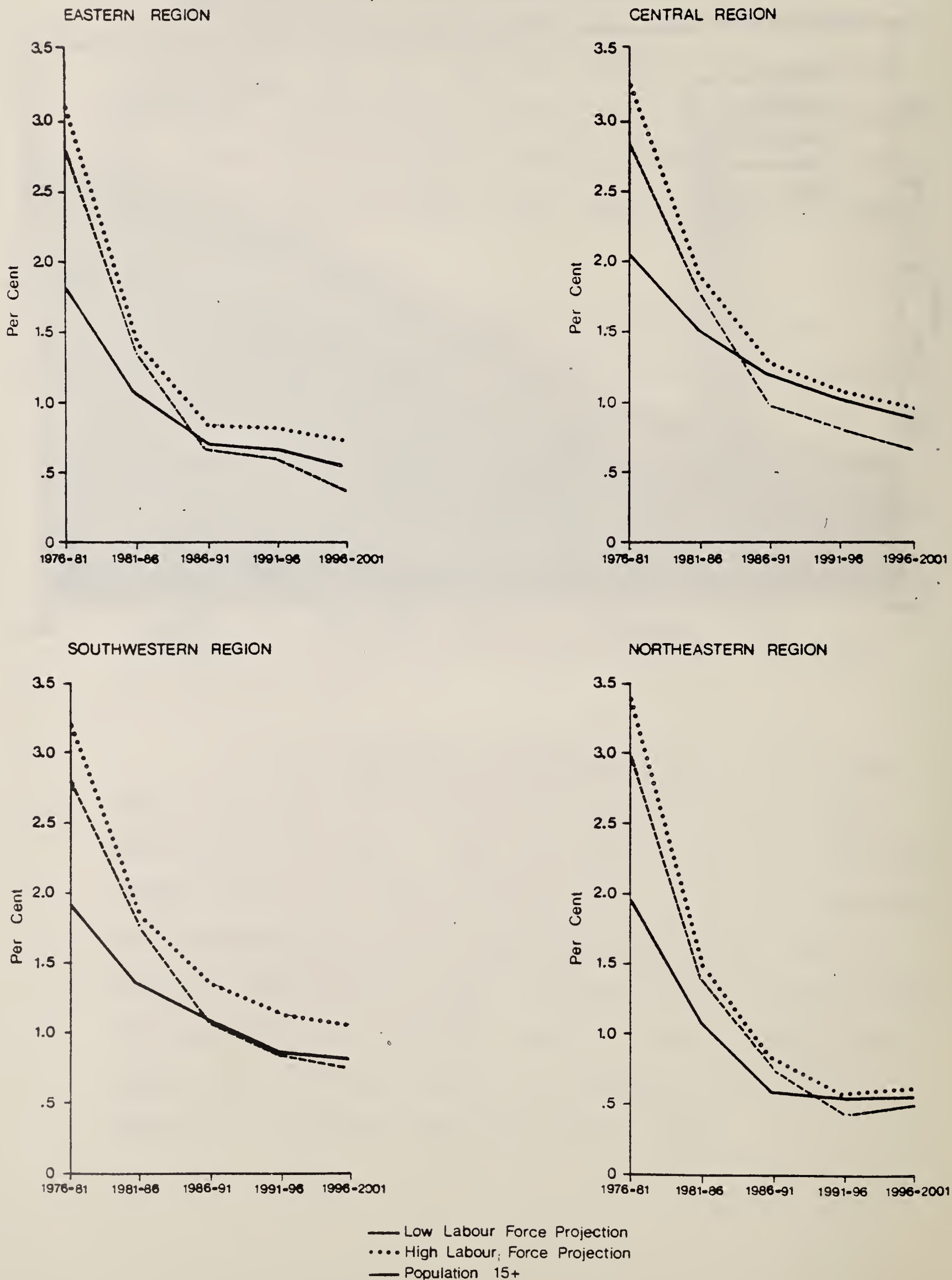
GRAPH 8

ONTARIO LABOUR FORCE BY ECONOMIC REGIONS
ACTUAL 1941-1971 PROJECTED 1981-2001
(30,000 NET MIGRATION, HIGH PARTICIPATION RATES)



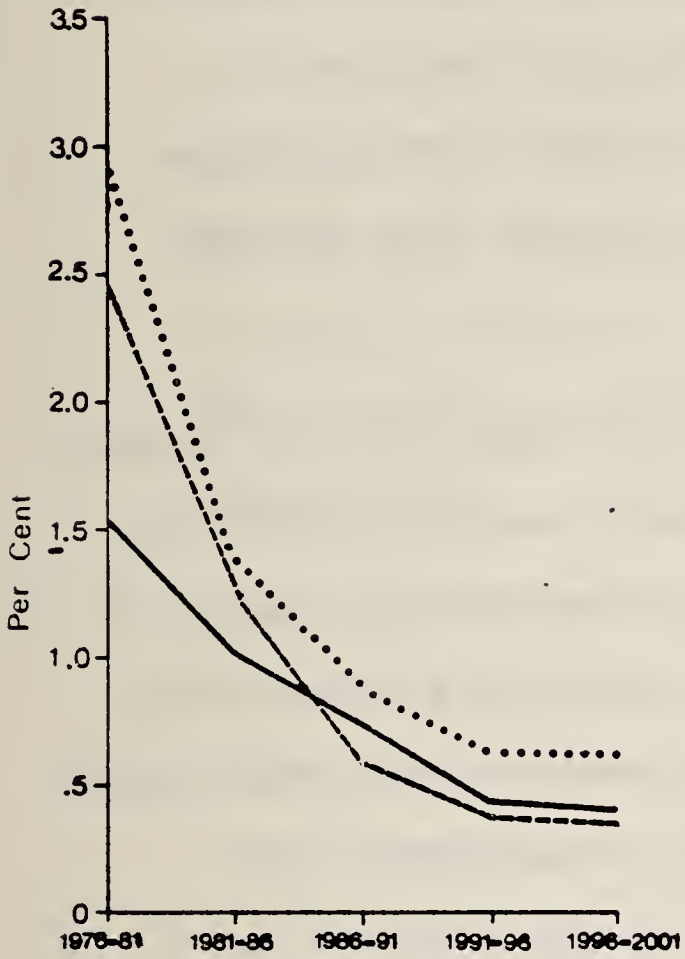
GRAPH 9

FIVE-YEAR AVERAGE ANNUAL PROJECTED GROWTH RATES IN LABOUR FORCE AND
POPULATION 15+ FOR ECONOMIC REGION AND PROVINCE, 1976-2001
[AT 30,000 NET MIGRATION]

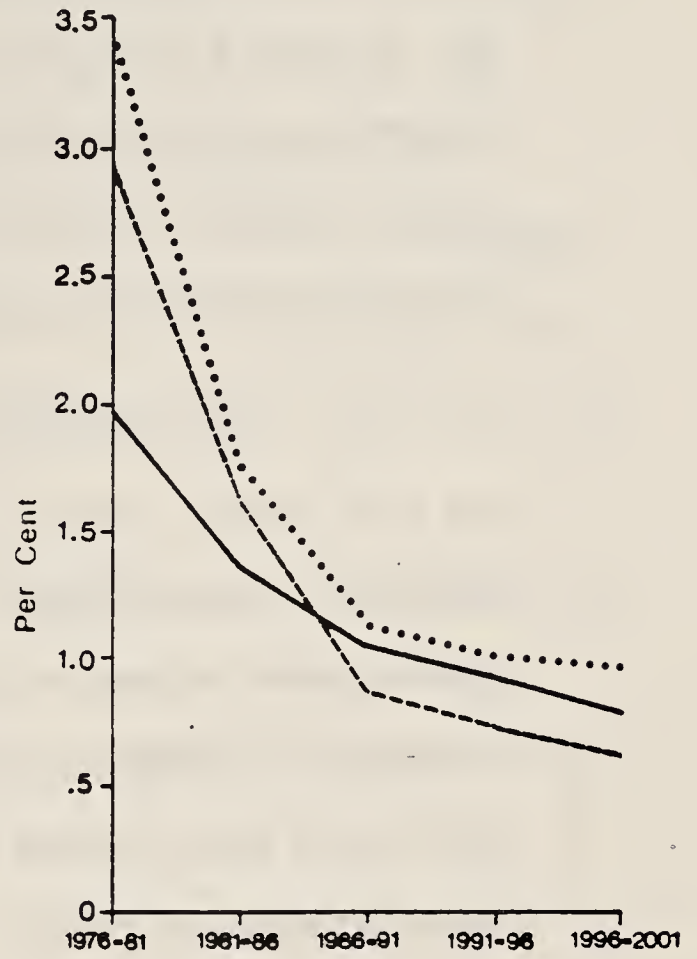


FIVE-YEAR AVERAGE ANNUAL PROJECTED GROWTH RATES IN LABOUR FORCE AND
POPULATION 15+ FOR ECONOMIC REGION AND PROVINCE, 1976-2001
[AT 30,000 NET MIGRATION]

NORTHWESTERN REGION



PROVINCE



— Low Labour Force Projection
 High Labour Force Projection
 — Population 15+

SUMMARY AND CONCLUSION

Ontario's labour force is expected to continue to increase over the next 25 years but the rate of growth will probably decline from about 3 per cent per annum in the 1971 to 1976 period to less than one per cent per annum by the 1990s.

The average age of the work force will be higher, as the young people born in the baby boom period of the fifties, are already in the work force and the number of immigrants coming to Ontario and Canada has slowed down. This will shift emphasis from the need to get young people into the work force to the need for flexibility of established workers.

The patterns of growth across the province are expected to follow past trends. Central Ontario now has over 60% of the province's work force and is expected to be the main drawing force for additional workers. The areas surrounding the central core are experiencing the fastest growth and if present trends continue will show substantial labour force gains.

Southwestern Ontario is also expected to show a faster rate of increase in labour force than the provincial

average with numerical growth projected at about 1/4 million over the 25 year period.

The northern and eastern regions show slower growth trends than the province with projected additions of 175 to 250 thousand for Eastern Ontario, 75 to 100 thousand for Northeastern and 28 to 40 thousand for Northwestern Ontario. The main areas of growth in these regions are Russell county, because of its proximity to Ottawa-Carleton, the regional municipality of Sudbury, and Thunder Bay.

The regional and local distribution of population and labour force is influenced by a great many factors other than demographic ones and such things as attitudes to local development, access to raw materials, fuel costs and economic opportunity have a strong impact on local settlement patterns. For this reason, when looking at any of these projections, the economic situation must be taken into consideration.

TABLE 1

ONTARIO WORKING AGE POPULATION AND LABOUR FORCE, BY SEX, ANNUAL AVERAGES, 1966-1978

YEAR	POPULATION 15+			LABOUR FORCE			PARTICIPATION RATE		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
1966	4,660	2,285	2,375	2,787	1,878	908	59.8	82.2	38.2
1967	4,805	2,359	2,446	2,891	1,925	966	60.2	81.6	39.5
1968	4,944	2,425	2,519	2,980	1,970	1,010	60.3	81.2	40.1
1969	5,083	2,494	2,590	3,077	2,017	1,060	60.5	80.9	40.9
1970	5,249	2,576	2,673	3,177	2,070	1,106	60.5	80.4	41.4
1971	5,405	2,653	2,752	3,290	2,110	1,181	60.9	79.5	42.9
1972	5,529	2,712	2,817	3,410	2,172	1,237	61.7	80.1	43.9
1973	5,658	2,774	2,885	3,532	2,225	1,307	62.4	80.2	45.3
1974	5,815	2,849	2,966	3,686	2,295	1,391	63.4	80.6	46.9
1975	5,954	2,915	3,039	3,818	2,342	1,476	64.1	80.3	48.6
1976	6,084	2,976	3,108	3,885	2,361	1,524	63.9	79.3	49.0
1977	6,210	3,037	3,174	3,994	2,412	1,581	64.3	79.4	49.8
1978	6,333	3,095	3,238	4,147	2,480	1,667	65.5	80.1	51.5

SOURCE: Statistics Canada #71-201, Historical Labour Force Statistics, 1978.

Social and Economic Data
Central Statistical Services
Ministry of Treasury and Economics

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TABLE 2

PROJECTED LABOUR FORCE AND PARTICIPATION RATES, BY SEX, ONTARIO
ACTUAL 1976, PROJECTED 1981-2001

<u>PROJECTED AT 30,000 NET MIGRATION</u>					
	<u>POPULATION</u>	<u>LABOUR FORCE</u>		<u>PARTICIPATION RATES</u>	
	<u>15+</u>	<u>A</u>	<u>B</u>	<u>A</u>	<u>B</u>
		(000's)		(%)	
<u>TOTAL</u>					
1976	6,191	3,856		62.3	
1981	6,830	4,449	4,539	65.1	66.5
1986	7,313	4,829	4,951	66.0	67.7
1991	7,706	5,048	5,250	65.5	68.1
1996	8,057	5,232	5,517	64.9	68.5
2001	8,380	5,398	5,771	64.4	68.9
<u>MALE</u>					
1976	3,034	2,341		77.2	
1981	3,347	2,692	2,699	80.4	80.6
1986	3,579	2,902	2,924	81.1	81.7
1991	3,767	3,051	3,088	81.0	82.0
1996	3,931	3,174	3,225	80.7	82.0
2001	4,082	3,285	3,354	80.5	82.2
<u>FEMALE</u>					
1976	3,157	1,516		48.0	
1981	3,484	1,757	1,840	50.4	52.8
1986	3,734	1,927	2,027	51.6	54.3
1991	3,940	1,996	2,162	50.7	54.9
1996	4,126	2,059	2,292	49.9	55.6
2001	4,298	2,113	2,418	49.2	56.3
<u>PROJECTED AT 50,000 NET MIGRATION</u>					
<u>TOTAL</u>					
1976	6,191	3,856		62.3	
1981	6,909	4,508	4,599	65.2	66.6
1986	7,475	4,952	5,077	66.2	67.9
1991	7,961	5,239	5,448	65.8	68.4
1996	8,411	5,497	5,795	65.4	68.9
2001	8,841	5,740	6,136	64.9	69.4
<u>MALE</u>					
1976	3,034	2,341		77.2	
1981	3,386	2,727	2,734	80.5	80.7
1986	3,660	2,974	2,996	81.3	81.9
1991	3,892	3,164	3,201	81.3	82.2
1996	4,107	3,329	3,382	81.1	82.3
2001	4,310	3,487	3,558	80.9	82.6
<u>FEMALE</u>					
1976	3,157	1,516		48.0	
1981	3,523	1,781	1,865	50.6	52.9
1986	3,816	1,978	2,081	51.8	54.5
1991	4,068	2,076	2,247	51.0	55.2
1996	4,304	2,168	2,414	50.4	56.1
2001	4,530	2,254	2,578	49.8	56.9

A - Low Participation Rates.
B - High Participation Rates.

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TABLE 3

LABOUR FORCE PROJECTIONS BY SEX AND AGE GROUP, ONTARIO,
ACTUAL 1976 AND PROJECTED 1981-2001

30,000 NET MIGRATION

SEX AND AGE GROUP	ACTUAL 1976	PROJECTED					PROJECTED				
		LABOUR FORCE A					LABOUR FORCE B				
		1981	1986	1991	1996	2001	1981	1986	1991	1996	2001
Total, Age 15+	3,856	4,449	4,829	5,048	5,232	5,398	4,539	4,951	5,250	5,517	5,771
Men, Age 15+	2,341	2,692	2,902	3,051	3,174	3,285	2,699	2,924	3,088	3,225	3,354
15-19	213	246	210	196	194	200	246	214	204	206	216
20-24	321	365	365	312	291	289	365	368	317	298	299
25-34	600	727	801	851	792	710	727	801	851	792	710
35-44	453	538	657	748	822	871	538	657	748	822	871
45-54	424	448	456	512	624	709	448	456	512	624	709
55-64	265	314	349	354	360	406	314	353	362	373	425
65+	65	54	64	78	91	101	61	74	92	109	124
Women, Age 15+	1,516	1,757	1,927	1,996	2,059	2,113	1,840	2,027	2,162	2,292	2,418
15-19	182	197	169	157	157	161	213	186	177	181	189
20-24	264	295	296	255	239	241	312	315	274	259	263
25-34	376	476	535	550	510	457	499	555	592	569	528
35-44	277	337	438	507	543	557	353	454	546	605	643
45-54	253	264	287	324	399	462	271	296	340	426	500
55-64	135	167	180	178	181	204	167	192	200	215	255
65+	28	20	23	27	30	32	25	29	33	37	40
Total, Age 15+	3,856	4,508	4,952	5,239	5,497	5,740	4,599	5,077	5,448	5,795	6,136
Men, Age 15+	2,341	2,727	2,974	3,164	3,329	3,487	2,734	2,996	3,201	3,382	3,558
15-19	213	248	214	203	203	212	248	218	211	216	230
20-24	321	371	374	324	307	308	371	377	329	314	319
25-34	600	744	834	894	841	767	744	834	894	841	767
35-44	453	544	675	783	873	931	544	675	783	873	931
45-54	424	451	462	524	647	748	451	462	524	647	748
55-64	265	315	351	358	367	418	315	355	367	381	438
65+	65	54	65	79	92	103	61	75	93	110	126
Women, Age 15+	1,516	1,781	1,978	2,076	2,168	2,254	1,865	2,081	2,247	2,414	2,578
15-19	182	199	172	162	165	171	215	190	183	190	201
20-24	264	302	304	267	254	259	318	324	287	275	284
25-34	376	486	558	581	546	498	509	579	625	609	575
35-44	277	341	448	528	576	598	357	465	569	642	690
45-54	253	266	291	331	412	484	273	300	347	440	525
55-64	135	168	182	180	186	211	168	194	203	220	263
65+	28	20	23	27	30	32	25	29	34	38	40

50,000 NET MIGRATION

A - Low participation Rates.
B - High participation Rates.

TABLE 4

MEDIAN AGE OF THE LABOUR FORCE, ONTARIO,
ACTUAL 1976 PROJECTED 1981-2001

	<u>30,000 NET MIGRATION</u>		<u>50,000 NET MIGRATION</u>	
	<u>LABOUR FORCE</u>		<u>LABOUR FORCE</u>	
	<u>A</u>	<u>B</u>	<u>A</u>	<u>B</u>
<u>Total, Age 15+</u>				
1976	34.7	34.7	34.7	34.7
1981	34.3	34.2	34.2	34.2
1986	35.4	35.3	35.2	35.1
1991	36.6	36.6	36.5	36.4
1996	38.2	38.2	38.0	38.0
2001	39.5	39.5	39.3	39.3
<u>Male, Age 15+</u>				
1976	35.8	35.8	35.8	35.8
1981	35.1	35.2	35.0	35.1
1986	36.1	36.2	36.0	36.0
1991	37.2	37.3	37.1	37.1
1996	38.8	38.9	38.6	38.7
2001	40.1	40.2	39.9	40.0
<u>Female, Age 15+</u>				
1976	33.3	33.3	33.3	33.3
1981	33.1	32.9	33.0	32.9
1986	34.3	34.2	34.2	34.1
1991	35.7	35.6	35.5	35.5
1996	37.3	37.3	37.1	37.1
2001	38.6	38.6	38.3	38.3

A - Low Participation Rates.
B - High Participation Rates.

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TABLE 5

WORKING AGE POPULATION AND LABOUR FORCE BY ECONOMIC REGION, ONTARIO,
ACTUAL 1976 AND PROJECTED, 1981-2001

PROVINCE	POPULATION 15+		LABOUR FORCE			
	NET MIGRATION		30,000 NET MIGRATION		50,000 NET MIGRATION	
	30,000	50,000	A	B	A	B
	(000's)					
1976	6,191	6,191	3,856	3,856	3,856	3,856
1981	6,830	6,909	4,449	4,539	4,508	4,599
1986	7,313	7,475	4,829	4,951	4,952	5,077
1991	7,706	7,961	5,048	5,250	5,239	5,448
1996	8,057	8,411	5,232	5,517	5,497	5,795
2001	8,380	8,841	5,398	5,771	5,740	6,136
<u>EASTERN ONTARIO</u>						
1976	868	868	535	535	535	535
1981	948	953	613	626	617	630
1986	999	1,010	655	672	664	680
1991	1,036	1,053	675	701	687	715
1996	1,072	1,096	693	731	710	749
2001	1,105	1,136	709	758	731	782
<u>CENTRAL ONTARIO</u>						
1976	3,812	3,812	2,418	2,418	2,418	2,418
1981	4,224	4,287	2,797	2,854	2,845	2,903
1986	4,551	4,682	3,050	3,128	3,151	3,230
1991	4,824	5,029	3,200	3,328	3,355	3,490
1996	5,069	5,355	3,325	3,508	3,541	3,734
2001	5,289	5,662	3,435	3,675	3,714	3,972
<u>SOUTHWESTERN ONTARIO</u>						
1976	926	926	571	571	571	571
1981	1,019	1,026	657	670	662	676
1986	1,090	1,105	716	734	727	746
1991	1,151	1,175	756	786	773	804
1996	1,201	1,235	788	831	813	857
2001	1,252	1,296	819	875	851	910
<u>NORTHEASTERN ONTARIO</u>						
1976	415	415	232	232	232	232
1981	457	459	268	273	270	275
1986	481	485	287	294	289	296
1991	497	502	295	305	298	309
1996	511	518	300	315	305	320
2001	527	535	307	326	312	332
<u>NORTHWESTERN ONTARIO</u>						
1976	169	169	100	100	100	100
1981	182	183	113	115	114	116
1986	192	194	120	123	121	124
1991	199	201	124	128	126	130
1996	203	207	126	133	129	135
2001	207	212	128	137	131	140

A - Low Participation Rates
B - High Participation Rates

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TABLE 6

FIVE YEAR AVERAGE ANNUAL GROWTH RATES (%) IN WORKING AGE POPULATION AND LABOUR FORCE
BY ECONOMIC REGION, ONTARIO, 1976-2001

<u>PROVINCE</u>	<u>POPULATION 15+</u>		<u>LABOUR FORCE</u>			
	<u>NET MIGRATION</u>		<u>30,000 NET MIGRATION</u>		<u>50,000 NET MIGRATION</u>	
	<u>30,000</u>	<u>50,000</u>	<u>A</u>	<u>B</u>	<u>A</u>	<u>B</u>
1976-81	1.99	2.22	2.90	3.31	3.17	3.59
1981-86	1.37	1.59	1.65	1.75	1.90	2.00
1986-91	1.05	1.27	0.89	1.18	1.13	1.42
1991-96	0.89	1.11	0.72	1.00	0.96	1.24
1996-2001	0.79	1.00	0.63	0.91	0.87	1.15
<u>EASTERN ONTARIO</u>						
1976-81	1.77	1.88	2.77	3.19	2.90	3.32
1981-86	1.05	1.16	1.33	1.43	1.46	1.55
1986-91	0.73	0.84	0.58	0.86	0.70	0.98
1991-96	0.70	0.81	0.53	0.82	0.66	0.94
1996-2001	0.60	0.72	0.46	0.74	0.59	0.87
<u>CENTRAL ONTARIO</u>						
1976-81	2.07	2.38	2.95	3.37	3.31	3.72
1981-86	1.50	1.78	1.75	1.85	2.06	2.16
1986-91	1.17	1.44	0.96	1.25	1.27	1.56
1991-96	1.00	1.26	0.77	1.05	1.08	1.36
1996-2001	0.85	1.12	0.65	0.94	0.96	1.24
<u>SOUTHWESTERN ONTARIO</u>						
1976-81	1.92	2.07	2.84	3.26	3.01	3.43
1981-86	1.35	1.49	1.74	1.85	1.90	2.00
1986-91	1.10	1.23	1.08	1.36	1.24	1.52
1991-96	0.86	1.00	0.85	1.12	1.00	1.27
1996-2001	0.83	0.97	0.77	1.05	0.93	1.21
<u>NORTHEASTERN ONTARIO</u>						
1976-81	1.95	2.02	2.96	3.34	3.05	3.43
1981-86	1.03	1.09	1.35	1.45	1.43	1.52
1986-91	0.65	0.71	0.52	0.77	0.59	0.84
1991-96	0.57	0.63	0.38	0.65	0.45	0.72
1996-2001	0.60	0.66	0.43	0.69	0.49	0.75
<u>NORTHWESTERN ONTARIO</u>						
1976-81	1.56	1.66	2.51	2.90	2.62	3.02
1981-86	1.01	1.10	1.20	1.32	1.31	1.42
1986-91	0.71	0.79	0.58	0.86	0.68	0.95
1991-96	0.44	0.52	0.38	0.64	0.48	0.74
1996-2001	0.41	0.49	0.35	0.62	0.45	0.71

A - Low Participation Rates
B - High Participation Rates

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Ministry of Treasury and Economics

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APPENDIX A

ASSUMPTIONS: ONTARIO LABOUR FORCE
PROJECTIONS 1976-2001

The Labour Force Projections are based on the following assumptions:

POPULATION PROJECTIONS

Based on demographic projections made by Central Statistical Services, Ministry of Treasury and Economics as follows:

1. Fertility Rates - Declining from about 1.8 in 1976 to 1.5 at the turn of the Century.
2. Mortality Rates - Continuing to decline gradually in the under one and over 50 age groups. Little change in others.
3. Net Migration -
 - (a) 30,000 net migration to Ontario
 - (b) 50,000 net migration to Ontario.
4. Internal Migration 0.54 per cent of the total Ontario population.

Labour Force Participation Rates:

- (a) Little change in male rates.
Slight increase in female participation rates.
- (b) Slight increase in participation of males in young ages.
Steady increase in female participation rates.

County participation rates to follow trends similar to the provincial trends.

Continuing economic expansion although at reduced rate.

For a description of the population projection methodology see "Ontario Population Projections - Presentation to the Select Committee on Hydro Affairs".

APPENDIX B.

METHODOLOGY

Labour Force projections are based on male and female age specific population projections and trends in age specific participation rates by sex.

Population projections used are those produced by the Social and Economic Data Unit of Central Statistical Services, based on 1976 Census data.

The participation rate trends for the province are estimated on the basis of past trends and current information on labour market activity of the population. These participation rates are then applied to the projected population numbers to obtain labour force projections.

PROJECTED PARTICIPATION RATES

Participation rates are expressed as that proportion of the population age 15 and over who are in the labour force.

Participation rates tend to vary over time, and they are influenced by a variety of factors. For example, there are conflicting pressures on participation rates during a recession. Women, particularly in the major centres may enter the labour force to supplement the family income. On the other hand, persons with tenuous attachment to the labour force - the young entrants and older persons may withdraw from the labour force when jobs are not available. An out-

standing feature of labour force trends is the steady rise in women's participation rates. The same forces influencing women to join the labour force during the past few years will likely continue to operate in the future; including higher education levels, smaller families, increased urbanization, the squeeze on real family income with rising inflation, and the desire for careers.

Two sets of projected participation rates were prepared for the province - a high and a low set.

In each set, participation rates were projected by sex for age groups: 15-19, 20-24, 25-34, 35-44, 45-54, 55-64, and 65+.

PROJECTED MALE PARTICIPATION RATES

The lower set of projected rates reflects male participation at much the same levels as in recent years. The higher set reflects greater participation on the part of the younger age groups 15-19, 20-24, and the 55-64 age groups. In the higher set, the rate for the 15-19 age group is forecast at 60% in 1981 rising to 65% by 2001, the 20-24 age group at 87% in 1981 rising to 90% by 2001, and the 55-64 age group at 82% rising to 86% by 2001.

MALE:

LOW PARTICIPATION RATES

	<u>1981</u>	<u>1986</u>	<u>1991</u>	<u>1996</u>	<u>2001</u>
15-19	60.0	60.0	60.0	60.0	60.0
20-24	87.0	87.0	87.0	87.0	87.0
25-34	97.0	97.0	97.0	97.0	97.0
35-44	97.5	97.5	97.5	97.5	97.5
45-54	94.5	94.5	94.5	94.5	94.5
55-64	82.0	82.0	82.0	82.0	82.0
65+	15.0	15.75	16.5	17.25	18.0

HIGH PARTICIPATION RATES

15-19	60.0	61.25	62.5	63.75	65.0
20-24	87.0	87.75	88.5	89.25	90.0
25-34	97.0	97.0	97.0	97.0	97.0
35-44	97.5	97.5	97.5	97.5	97.5
45-54	94.5	94.5	94.5	94.5	94.5
55-64	82.0	83.0	84.0	85.0	86.0
65+	17.0	18.25	19.5	20.75	22.0

PROJECTED

FEMALE PARTICIPATION RATES

The total female labour force participation rate has risen from around 38.2% in 1966 to 51.5% in 1978. The increase in female participation is evident in all age groups except those over 55 years of age, which has a more variable pattern. In forecasting female labour force participation, greater participation than current levels is anticipated in both sets of projections. In the lower set, participation rates are set out at slightly higher levels than recent annual rates. In the higher set of rates,

each age group shows an increasing trend over the forecast period 1981-2001 (except those over 65 years of age).

Females in the 25-44 age group particularly may join the labour force in much greater numbers. Participation rates in this age group may rise to 65% by 1981, and 75% by 2001. Those in the 45-54 age group may have a labour force participation rate of 58% by 1981 and 65% by 2001.

FEMALE

LOW PARTICIPATION RATES

	<u>1981</u>	<u>1986</u>	<u>1991</u>	<u>1996</u>	<u>2001</u>
15-19	51.0	51.0	51.0	51.0	51.0
20-24	73.0	73.5	74.0	74.5	75.0
25-34	62.0	65.0	65.0	65.0	65.0
35-44	62.0	65.0	65.0	65.0	65.0
45-54	56.5	60.0	60.0	60.0	60.0
55-64	40.0	40.0	40.0	40.0	40.0
65+	4.0	4.0	4.0	4.0	4.0

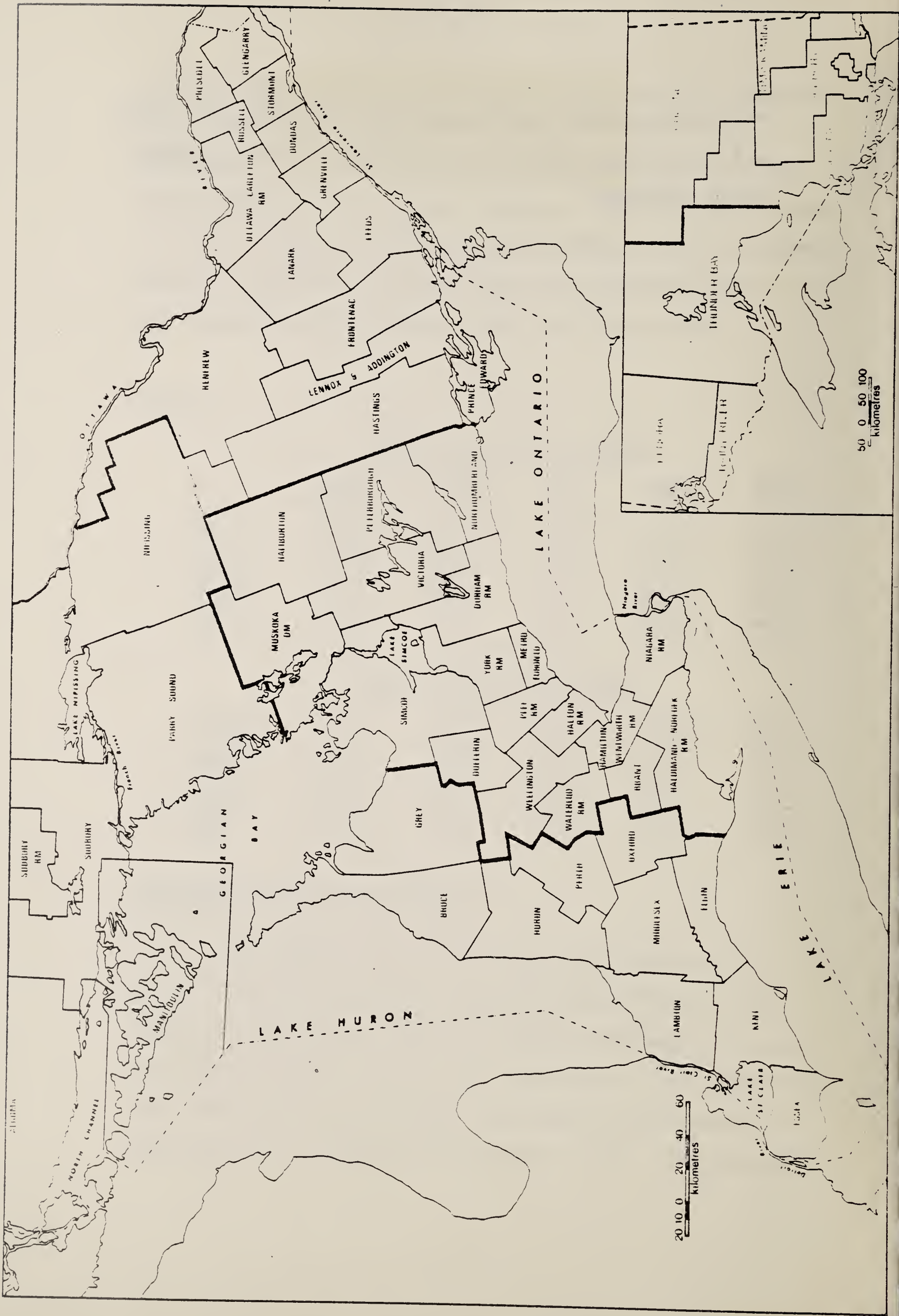
HIGH PARTICIPATION RATES

15-19	55.0	56.25	57.5	58.75	60.0
20-24	77.0	78.25	79.5	80.75	82.0
25-34	65.0	67.5	70.0	72.5	75.0
35-44	65.0	67.5	70.0	72.5	75.0
45-54	58.0	62.0	63.0	64.0	65.0
55-64	40.0	42.5	45.0	47.5	50.0
65+	5.0	5.0	5.0	5.0	5.0

ALLOWANCE FOR COUNTY VARIATION

To develop projections for the counties, the labour force participation rates from the 1971 and 1976 Censuses were used to rank the counties for each age group. The counties were rated to fall into one of four categories. Once the counties were rated, an index was estimated for each group on the basis the province = 100. The indexes

were then applied to the provincial participation rates and the county population projections to obtain labour force estimates.



ONTARIO COUNTIES (REGIONAL ORDER)

<u>GEO CODE</u>	<u>COUNTY</u>	<u>GEO CODE</u>	<u>COUNTY</u>
	EASTERN		SOUTHWESTERN
1	Dundas	33	Bruce
2	Frontenac	34	Elgin
3	Glengarry	35	Essex
4	Grenville	36	Grey
5	Hastings	37	Huron
6	Lanark	38	Kent
7	Leeds	39	Lambton
8	Lennox and Addington	40	Middlesex
9	Ottawa-Carleton (R.M.)	41	Oxford
10	Prescott	42	Perth
11	Prince Edward		
12	Renfrew		NORTHEASTERN
13	Russell		
14	Stormont	43	Algoma
	CENTRAL	44	Cochrane
15	Brant	45	Manitoulin
16	Dufferin	46	Nipissing
17	Durham (R.M.)	47	Parry Sound
18	Haldimand-Norfolk (R.M.)	48	Sudbury (R.M.)
19	Haliburton	49	Sudbury (T.D.)
20	Halton (R.M.)	50	Timiskaming
21	Hamilton-Wentworth (R.M.)		NORTHWESTERN
22	Muskoka (D.M.)	51	Kenora
23	Niagara (R.M.)	52	Rainy River
24	Northumberland	53	Thunder Bay
25	Peel (R.M.)		
26	Peterborough		
27	Simcoe		
28	Toronto (M.M.)		
29	Victoria (R.M.)		
30	Waterloo (R.M.)		
31	Wellington		
32	York (R.M.)		

R.M. - Regional Municipality
D.M. - District Municipality
M.M. - Metropolitan Municipality
T.D. - Territorial District

HD
5729
.06
.0567

Ontario labour force
projections, 1976-2001.

